

Appl. No. 10/049,415
Response dated: September 16, 2005
Reply to Office action of June 16, 2005

REMARKS

In response to the Office Action dated June 16, 2005, Applicants respectfully request reconsideration based on the above claim amendments and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance.

Claims 1-14 are pending in the present Application. Claims 1-5, 10 and 14 have been amended and Claims 11-13 have been canceled, leaving Claims 1-10 and 14 for consideration upon entry of the present amendments and following remarks.

Support for the claim amendments can at least be found in the specification, the figures, and the claims as originally filed. Particularly, support for the amendments to Claims 1-5 are at least found in originally filed Figure 2.

Claim 5 has not been rejected over prior art. Applicants understand Claim 5 as including allowable subject matter.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections – 35 U.S.C. §112

Claims 2-5 are rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Particularly regarding Claims 2 and 3, it is unclear whether the "input signal" of Claim 2 is the same as the at least one signal having N directional components in Claim 1, or if the "input signal" is a different signal comprising N direction input components. Regarding Claim 5, "...said P outputs..., said direction rendering unit...", there is insufficient antecedent basis for this limitation in Claim 5.

In response, Applicants herein amend Claims 1-5 to more clearly set forth the invention and provide proper antecedent basis for the claim limitations. Entry of the amendments, reconsideration of the claims and withdrawal of the relevant rejection is respectfully requested.

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Double Patenting

Claims 11-13 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 11 and 12 of copending Application No. 10049417. Although the conflicting claims are not identical, they are not patentably distinct from each other because each is drawn to processing a plurality of input signals to create a specific processed audio signal.

In response, Applicants herein cancel Claims 11-13 without prejudice. Reconsideration and withdrawal of the relevant rejection is respectfully requested.

Claim Rejections Under 35 U.S.C. §102

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Regarding Claims 1 and 10-14

Claims 1 and 10-14 are rejected under 35 U.S.C. §102(b) as being anticipated by Kendall et al., U.S. Patent No. 4,731,848 (hereinafter "Kendall"). Claims 11-13 have been hereinabove canceled.

Amended Claim 1 recites, *inter alia*,

"...at least two inputs; and
at least two early pattern generators, each of said at least two early pattern generators being connected to at least one of said at least two inputs, each of said at least two early pattern generators establishing an output having N directional components, each of said N directional components of said outputs being added to form at least one signal having N directional components."

Kendall does not disclose these limitations of amended Claim 1. Kendall is silent as to disclosing how outputs could be combined into a common output. Kendall also does not disclose more than one signal.

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Thus, Kendall does not disclose at least all of the limitations of amended Claim 1. Accordingly, Kendall does not anticipate amended Claim 1. Reconsideration of the claims is respectfully requested.

Amended Claim 10 recites, *inter alia*,

“...at least two inputs; and
at least two space processors, each of said at least two space processors being connected to at least one of said at least two inputs, each of said at least two space processors establishing an output having N directional components, each of said N directional components of said outputs being added to form at least one signal having N directional components.”

Kendall does not disclose these limitations of amended Claim 10. Kendall is silent as to disclosing how outputs could be combined into a common output. Kendall also does not disclose more than one signal.

Thus, Kendall does not disclose at least all of the limitations of amended Claim 10. Accordingly, Kendall does not anticipate amended Claim 10. Applicants respectfully submit that Claim 10 is not further rejected or objected and is therefore allowable. Reconsideration and allowance of Claim 10 is respectfully requested.

Amended Claim 14 recites, *inter alia*,

“...at least two inputs; and
at least two reverberation units, each of said at least two reverberation units being connected to at least one of said at least two inputs, each of said at least two reverberation units establishing an output having N directional components, each of said N directional components of said outputs being added to form at least one signal having N directional components.”

Kendall does not disclose these limitations of amended Claim 14. Kendall is silent as to disclosing how outputs could be combined into a common output. Kendall also does not disclose more than one signal.

Thus, Kendall does not disclose at least all of the limitations of amended Claim 14. Accordingly, Kendall does not anticipate amended Claim 14. Applicants respectfully submit that Claim 14 is not further rejected or objected and is therefore allowable. Reconsideration and allowance of Claim 14 is respectfully requested.

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Regarding Claims 1-4 and 6-9

Claims 1-4 and 6-9 are rejected under 35 U.S.C. §102(e) as being anticipated by Poletti, U.S. Patent No. 7,862,233 (hereinafter "Poletti").

Amended Claim 1 recites, *inter alia*,
 "...at least two inputs; and
 at least two early pattern generators, each of said at least two early pattern generators being connected to at least one of said at least two inputs, each of said at least two early pattern generators establishing an output having N directional components, each of said N directional components of said outputs being added to form at least one signal having N directional components."

Poletti discloses a wide-band non-in-line assisted reverberation system. (Col. 4, line 14.) Applicant finds no disclosure in Poletti of the region of each input being connected to an early pattern generator establishing an output comprising N directional components as claimed. Poletti is silent as to disclosing any signals having a plurality of directional components and does not further disclose any N directional component signal being added to form one N directional component signal. Applicants respectfully submit that the Examiner has not stated with specificity where such disclosure may be found and respectfully note that the rejection details in Item 9. of the Office Action do not appear to address Claims 1-4. Accordingly, Applicant submits that the Examiner has not met the burden of establishing a prima facie case of anticipation regarding Claims 1-4 with respect to Poletti.

Poletti does not disclose signals with several directional components and does not render such a signal into a different signal with several directional components and does not render such a signal into a different signal with several channels in such a way that the multi-channel signal corresponds to the multi-directional component signal. Therefore, Poletti does not disclose a direction rendering unit with an input for at least one of said at least signal having N directional components, said direction rendering unit establishing P channel output signals on an output of the direction rendering unit corresponding to input signals having N directional components as recited in Claim 2.

Further, Poletti does not render a multi-directional component signal into a multi-channel signal in such a way that the multi-channel signal corresponds to a trans- or bi-aural or

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experience based representation of the multi-directional component signal. Therefore, Poletti does not disclose P channel output signals are established in such a way that said P channel output signals correspond to a P-channel trans- or bin-aural or experience-based P-channel representation of said at least one signal having N directional components" as recited in Claims 3 and 4.

Thus, Poletti does not disclose at least all of the limitations of amended Claim 1 and Claims 2-4. Accordingly, Poletti further does not anticipate amended Claim 1 and Claims 2-4. Applicants respectfully submit that Claims 1-4 are not further rejected or objected and are therefore allowable. Reconsideration and allowance of Claims 1-4 is respectfully requested.

Claim 6 recites,

"A direction rendering unit comprising an input for N directional signals, said direction rendering unit establishing a P channel output signal on an output of the direction rendering unit corresponding to input signals having N directional components."

To support the rejection, the explanation in the Office Action contends that microphones and a reverberator enabling signals for two of the microphones to output to one speaker in Poletti "reads on a directional rendering unit," and that this is equivalent to the direction rendering unit of the claimed invention. However, Applicants respectfully contend that the rejection details in the Office Action mischaracterizes the teachings of Poletti with regard to the microphones and the reverberator and that Poletti does not disclose the limitations of Applicants claims.

Poletti does not disclose a signal having several directional components and does not disclose a means for rendering such a signal into a multi-channel signal corresponding to a representation of the multi-directional component signal. Therefore, Poletti does not disclose a direction rendering unit comprising an input for N directional signals, said direction rendering unit establishing a P channel output signal on an output of the direction rendering unit corresponding to input signals having N directional components as recited in Claim 6.

As discussed above, Poletti does not disclose the direction rendering unit of Claim 6. Poletti also does not disclose rendering a multi-directional component signal into a multi-channel signal in such a way that the multi-channel signal corresponds to a trans- or bi-aural experiences based experience based representation of the multi-directional component signal. Therefore, Poletti does not disclose "P-channel trans-aural representation of said input signals having N

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directional components" and "P channel output signals correspond to an experience-based P-channel representation of said input signals having N directional components" as recited in Claims 7 and 8.

Thus, Poletti does not disclose all of the limitations of at least Claims 6-8. Accordingly, Poletti does not anticipate Claims 6-8. Applicants respectfully submit that Claims 6-8 are not further rejected or objected and are therefore allowable. Reconsideration and allowance of Claims 6-8 is respectfully requested.

Claim 9 recites,

"M inputs each of which receives early pattern signals comprising N directional components; and
at least one output for transmitting an N-directional early pattern signal, said N-directional early pattern signal being established by adding said M inputs."

Poletti does not disclose several inputs, the signals of which being added with each other to form several outputs. Poletti does not disclose directionality, multi-directional input signals, maintenance of the directionality in the signal combining procedure or multi-directional output signals. Poletti establishes several outputs each comprising a little of each input. Therefore, Poletti does not disclose at least the limitations of Claim 9.

Thus, Poletti does not disclose all of the limitations of at least Claims 9. Accordingly, Poletti does not anticipate Claim 9. Applicants respectfully submit that Claim 9 is not further rejected or objected and is therefore allowable. Reconsideration and allowance of Claim 9 is respectfully requested.

Conclusion

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

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In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

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